

CLAIMS

What is claimed is:

1. A system, comprising:
a processor adapted to read BIOS code from a system read only memory ("ROM");
a management controller coupled to said processor; and
a network interface controller coupled to the management controller;
wherein the management controller selectively traps read accesses from the processor that target the system ROM and, in response, causes the network interface controller to load network BIOS code from storage external to the system during system initialization.
2. The computer system of claim 1 wherein the management controller is selectively configurable to operate in one of a plurality of modes comprising a first mode in which the management controller traps the read accesses and causes the network BIOS code to be loaded and a second mode in which the management controller does not trap read accesses and does not cause the network BIOS code to be loaded.
3. The computer system of claim 2 further comprising a selection device coupled to the management controller, the selection device indicating whether the management controller is to operate in the first mode or the second mode.
4. The computer system of claim 3 further comprising a system ROM coupled to the processor and to the selection device, wherein the selection device causes the system ROM to be disabled while the management controller operates in the first mode and causes the system ROM to be enabled while the management controller operates in the second mode.
5. A management controller, comprising:
a read only memory ("ROM") containing code; and

a central processing unit ("CPU") coupled to the ROM and configured to execute the code;

wherein the executable code causes the CPU, based on an external signal, to determine if the management controller is to emulate a system ROM and if so, to trap accesses to the system ROM and, when an access to the system ROM is trapped, to cause basic input output system ("BIOS") software stored external to the system ROM to be loaded into and executed by a computer containing the system ROM and the management controller.

6. The management controller of claim 5 wherein a first state of the external signal causes management controller's CPU to emulate the system ROM and a second state of the external signal precludes the CPU from emulating the system ROM.

7. The management controller of claim 5 wherein the CPU causes the entire externally stored BIOS software to be downloaded to the computer when a first access to the system ROM is trapped.

8. The management controller of claim 5 wherein the CPU causes only a portion of the externally stored BIOS software to be downloaded to the computer when a first access to the system ROM is trapped.

9. The management controller of claim 8 wherein the CPU causes additional portions of the externally stored BIOS software to be downloaded to the computer when the CPU traps additional accesses to the system ROM.

10. A network, comprising:
a computer that comprises a read only memory ("ROM") on which a local basic input output system ("BIOS") is stored and a management controller coupled to the ROM and to a network interface controller ("NIC"); and

a network storage device that contains a network BIOS, said network storage device external to the computer and accessible to the computer's management controller via the NIC;

wherein the management controller determines whether the management controller is operate in a first mode or a second mode and, if the management controller is to operate in the first mode, the management controller emulates the computer's ROM and causes the network BIOS to be copied to and executed by the computer instead of the local BIOS.

11. The network of claim 10 further comprising a network manager coupled to the management controller via the NIC wherein the network manager informs the management controller as to the location of the network BIOS.

12. The network of claim 11 wherein the network manager is adapted to change the network BIOS for execution on the computer.

13. The network of claim 11 further comprising a plurality of computers, each computer comprising a ROM on which a local BIOS is stored and a management controller coupled to the ROM and to the network storage device via a NIC, and wherein the network manager is adapted to change the network BIOS for execution on each of the plurality of computers.

14. The network of claim 10 wherein, if the management controller is to operate in the second mode, the management controller does not emulate the computer's ROM and the computer executes the local BIOS from the ROM and not the network BIOS.

15. A system, comprising:
a processor adapted to read and execute BIOS code from a system read only memory ("ROM"); and

means trapping read accesses from the processor to the system ROM and, in response, for causing BIOS code stored external to the system to be downloaded to the system for execution by the processor.

16. The system of claim 15 wherein the system also comprises the system ROM and further comprises means for disabling the system ROM.

17. The system of claim 15 further comprising means for permitting BIOS code stored on the system ROM to be executed by the processor.

18. A method, comprising:
determining whether a first mode or a second mode is specified;
if the first mode is specified, emulating a first storage device that contains executable software and, upon detection of an access to the first storage device, downloading software from a second storage device; and
if the second mode is specified, permitting the executable software contained in the first storage device to be executed.

19. The method of claim 18 further comprising disabling the first storage device if the first mode is specified.

20. The method of claim 18 further comprising gating a reset signal to the first storage device to preclude the first storage device from being released from a reset state if the first mode is specified.